

<b>Interview Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/761,396	MOSER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Cam N. Nguyen	1754	

All participants (applicant, applicant's representative, PTO personnel):

(1) Examiner Cam N. Nguyen. (3) \_\_\_\_\_.

(2) Mr. Benjamin E. Kern. (4) \_\_\_\_\_.

Date of Interview: 31 August 2006.

Type: a) ☒ Telephonic b) ☐ Video Conference  
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.  
If Yes, brief description: \_\_\_\_\_.

Claim(s) discussed: All.


Identification of prior art discussed: as applied.

Agreement with respect to the claims f) ☐ was reached. g) ☒ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: See Continuation Sheet.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

  
**CAM N. NGUYEN**  
**PRIMARY EXAMINER**

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

8/31/06  
Examiner's signature, if required

## Summary of Record of Interview Requirements

### Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

### Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

#### Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

#### 37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,  
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

### Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Claimed invention and proposed declaration discussed. Attorney urged that the Moser '956 patent does not teach a metal based material having the claimed crystallographic strain. Attorney also explained that the crystallographic strain is the measurement of the strength of the internal molecules of the lattice crystal structure of the metal based material. It was further explained that there is no relationship between the crystalline grain size and the crystallographic strain. From applicants' specification page 14, Table 2, it would appear to the Examiner that there is a relationship between the crystallite strain and the orifice (reactor or chamber diameter). In view of Table 2, as the orifice (reactor diameter) increases, the crystallographic strain % increases. Attorney further urged the material disclosed by Moser '956 patent does not have a "high phase purity". Upon carefully reviewed of applicants' specification, there is no specific value defining the claimed limitation "high phase purity" or it is uncertain as to how high is applicants considered "high".

proposed!

8/31/06

*Benjamin E. Kern*  
Writer's Direct Dial: (614) 223-9374  
Writer's Email: bkern@bfca.com

August 30, 2006

**VIA FACSIMILE ONLY**  
Examiner Cam N. Nguyen  
United States Patent & Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Re: August 31, 2006 Telephone Interview, 3:00 p.m. EST**  
U.S. Patent Application  
Title: METHOD OF PREPARING COMPOUNDS USING  
CAVITATION AND COMPOUNDS FORMED THEREFROM  
Inventor: Moser, et al.  
Serial No.: 09/761,396  
Filing Date: January 16, 2001  
Our Ref. No.: 24961-5

Dear Examiner Nguyen:

Attached please find an unexecuted Declaration of Dr. William R. Moser, Ph.D., in the above-referenced matter. Professor Moser is a named inventor in the subject application and in the principal reference cited against the subject application, U.S. Patent No. 5,417,956 (the "Moser '956 patent").

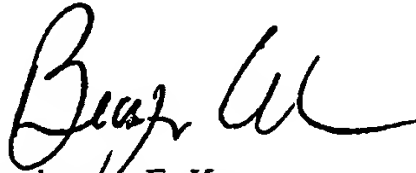
As we discussed, Dr. Moser will participate in the interview to answer any questions that you may have regarding the patentable distinctions between the compounds claimed in the subject application and the compounds disclosed in the Moser '956 patent.

I will initiate the call, and will call you at 3:00 p.m. EST at (571) 272-1357 unless you instruct me otherwise. Thank you again for your time and consideration regarding this matter.

Examiner Cam N. Nguyen  
August 30, 2006  
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Very truly yours,

BENESCH, FRIEDLANDER,  
COPLAN & ARONOFF LLP

A handwritten signature in black ink, appearing to read "Ben E. Kern", written over the printed name.

Benjamin E. Kern

BEK:cd

Enclosure

cc: Gregory S. Kolocouris

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF : Moser et al.  
FOR : METHODS OF PREPARING COMPOUNDS  
USING CAVITATION AND COMPOUNDS  
FORMED THEREFROM  
SERIAL NO. : 09/761,396  
FILED : January 16, 2001  
EXAMINER : Cam N. Nguyen  
ART UNIT : 1754  
CONFIRMATION NO. : 4778  
ATTORNEY DOCKET NO. : 24961-5

**DECLARATION OF DR. WILLIAM R. MOSER, PH.D.**

I, Dr. William R. Moser, Ph.D., hereby declare as follows:

1. I am a named inventor in the United States Patent Application entitled "Methods of preparing compounds using cavitation and compounds formed therefrom," and assigned Serial No. 09/761,396 (the "Subject Application").
2. I am also a named inventor in United States Patent No. 5,417,956 (the "Moser '956 patent").
3. The Subject Application discloses and claims metal based materials characterized by, among other things, crystallographic strain of about 0.1 to about 5.0 percent. Crystallographic strain is the strain, or tension, that a crystal is suffering. Crystallographic strain is a structural aspect of the compound being described. In other words, compounds containing crystallographic strain are different structurally from compounds not containing crystallographic strain.
4. The iron oxides disclosed in the Moser '956 patent constitute "crystallites of about 5%." The term "crystallinity" is used to express the portion of a pure metal oxide that is in a single crystalline form where all of the ions are in the correct position in a defined crystal lattice. A designation of 100% crystallinity would

mean that the material is of a single chemical composition, all of the ions are contained in a single crystallographic form, and there is no amorphous material. Thus, a designation of "about 5%" crystallinity merely means that, when examined by transition electron microscopy, only about 5% of the material that could be observed was crystalline, and the remaining material was either amorphous or very fine, inobservable, crystallites.

5. A material may exhibit "crystallinity" ~~without~~ exhibiting "crystallographic strain" of about 0.1 to about 5.0 percent.
6. On information and belief, the iron oxides disclosed in the Moser '956 patent do not exhibit crystallographic strain of about 0.1 to about 5.0 percent.
7. I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both (18 U.S.C. §1001) and may jeopardize the validity of the application or any patents issuing thereon.

Date: \_\_\_\_\_

By: \_\_\_\_\_  
Name: Dr. William R. Moser, Ph.D.